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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/711,326	09/10/2004	Takahiro Nakano	SIC-04-034	5325
29863	7590	07/10/2008	EXAMINER	
DELAND LAW OFFICE P.O. BOX 69 KLAMATH RIVER, CA 96050-0069				IRVIN, THOMAS W
ART UNIT		PAPER NUMBER		
		3683		
			NOTIFICATION DATE	
			DELIVERY MODE	
			07/10/2008	
			ELECTRONIC	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

[edeland@sisqtel.net](mailto:edeland@sisqtel.net)

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/711,326	NAKANO ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	THOMAS W. IRVIN	3683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 10 June 2008.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1 and 3-14 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1 and 3-14 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
     1. Certified copies of the priority documents have been received.  
     2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
     3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | Paper No(s)/Mail Date. _____ .                                    |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>20080310</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application |
|   | 6) <input type="checkbox"/> Other: _____ .                        |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 10, 2008 has been entered.

### ***Information Disclosure Statement***

The information disclosure statement (IDS) submitted on March 10, 2008 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 and 3-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the relationship between the radially inwardly facing spline and the radially outer surface facing radially outwardly is not clear.

***Claim Rejections - 35 USC § 102***

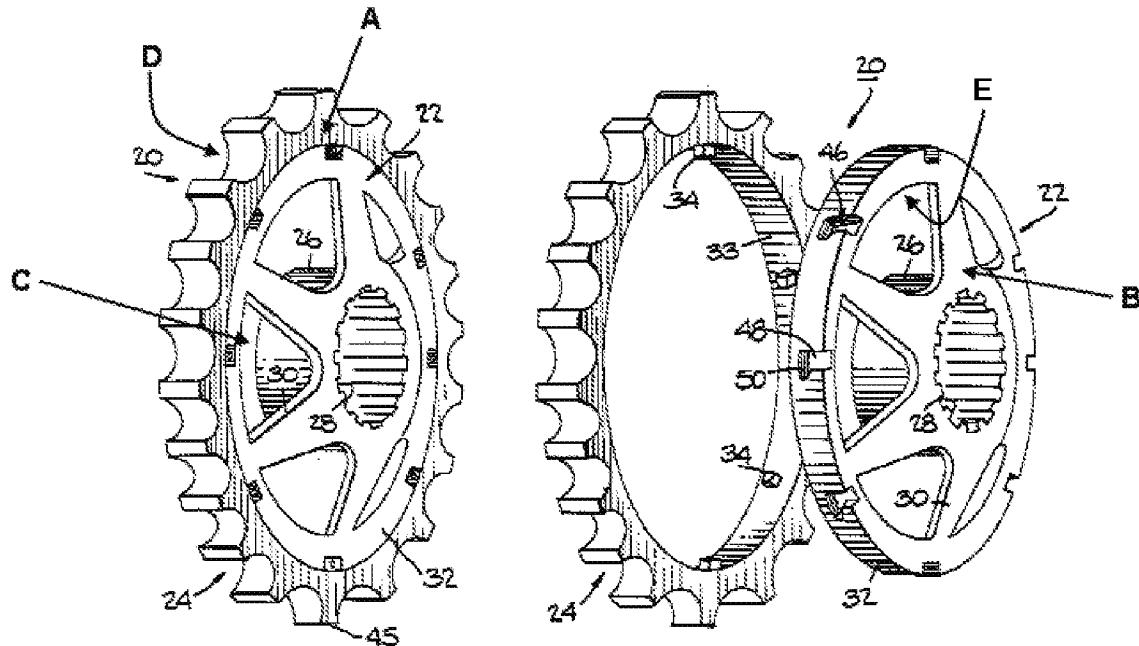
The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3-11, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Militana (3,168,836).



Figs. 1 and 2 (US Patent 3,168,836)

In Re claim 1, with reference to Figs. 1 and 2 shown above, Militana discloses a sprocket, wherein the sprocket comprises: a sprocket body (20); a plurality of teeth (45) extending radially outwardly from the sprocket body; a spline (28) extending radially inwardly from the sprocket body; wherein the spline includes a radially outer surface (26) facing radially outwardly; and wherein the radially outer surface of the spline faces a radially inner surface (E) of the sprocket body.

The examiner notes that the apparatus is one-piece upon assembly.

In Re claim 3, the inner surface is substantially straight in a direction of the rotational axis.

In Re claim 4, the inner surface is substantially parallel to the rotational axis.

In Re claim 5, the sprocket body has a side wall that includes a first side wall portion (A) and a second side wall portion (B), wherein the plurality of teeth extend

radially outwardly from the first side wall portion, and wherein the second side wall portion is laterally offset from the first side wall portion.

In Re claim 6, the second side wall portion overlaps the outer surface (26) when viewed in a direction parallel to the rotational axis.

In Re claim 7, the second side wall portion is spaced apart from the first side wall portion in a direction of the rotational axis.

In Re claim 8, the spline is offset from the first side wall portion in a direction of the rotational axis.

In Re claim 9, the spline extends from the second side wall portion and terminates at a free end (C), and the free end is spaced apart from a first side wall (D) of the first side wall portion (A) that faces in a same direction as the free end.

In Re claim 10, the sprocket body has a side wall that includes a first side wall portion (A) and a second side wall portion (B), wherein the plurality of teeth extend radially outwardly from the first side wall portion. It is the examiner's understanding that the second side wall portion and the spline together form a composite spline.

In Re claim 11, a thickness of the spline in a direction of the rotational axis is greater than a thickness of the second side wall portion in a direction of the rotational axis.

In Re claim 13, with reference to Figs. 1 and 2 shown above, Militana discloses a bicycle sprocket, wherein the sprocket comprises: a sprocket body (20); a plurality of teeth (45) extending radially outwardly from the sprocket body; a spline (28) extending radially inwardly from the sprocket body, wherein the spline has a root portion (30) and

a radially inner portion (26), wherein the root portion extends radially inwardly of the sprocket body and has a side wall (B) facing in a rotational direction, and wherein the radially inner portion extends radially inwardly of the root portion and has a side wall (C) facing in the rotational direction; and wherein a thickness of the radially inner portion of the spline in a direction parallel to the rotational axis is greater than a thickness of the root portion of the spline in a direction of the rotational axis.

Examiner notes that the apparatus is one-piece upon assembly.

Claims 1, 3-5, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Lim et al. (2001/0039224).

In Re claim 1, Lim et al. disclose a one-piece bicycle sprocket (21) adapted to rotate around a rotational axis, wherein the sprocket comprises: a sprocket body; a plurality of teeth extending radially outwardly from the sprocket body and dimensioned to engage a bicycle chain; a spline extending radially inwardly from the sprocket body; wherein the spline includes a radially outer surface facing radially outwardly; and wherein the radially outer surface of the spline faces a radially inner surface of the sprocket body (see Fig. 5). The examiner defines the radially inner surface of the six openings of the sprocket to be the radially outer surface of the spline, which face a radially inward facing outer surface of the six openings of the sprocket.

In Re claim 3, the inner surface is substantially straight in a direction of the rotational axis.

In Re claim 4, the inner surface is substantially parallel to the rotational axis.

In Re claims 5 and 10, the sprocket body has a side wall that includes a first side wall portion and a second side wall portion, left and right sides of the sprocket, wherein the plurality of teeth extend radially outwardly from the first side wall portion, and wherein the second side wall portion is laterally offset from the first side wall portion. It is believed that the second side wall portion and the spline together form a composite spline.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Militana (3,168,836).

Militana fails to teach the thickness of the root portion being substantially equal to the thickness of the first side wall portion. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have made the thickness of the root portion substantially equal to the thickness of the first side wall portion to increase the strength and rigidity of the sprocket body.

***Response to Arguments***

Applicant's arguments filed June 10, 2008 have been fully considered but they are not persuasive.

In response to applicant's argument, regarding claim 13, that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the root portion and radially inner portion) are not recited in the rejected claim(s) in such a way to define over the sprocket of Militana. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In response to applicant's argument, regarding claim 1, that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the radially outer surface of the spline) are not recited in the rejected claim(s) in such a way to define over the sprocket of Lim et al. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In response to applicant's arguments that Militana and Lim et al. do not have the "radially inwardly facing spline" and the "radially outer surface facing radially outwardly", both references appear to have these features in the same manner claimed, as pointed out in the rejections above. It is unclear how the references lack these features, since they seem to be substantially the same in that aspect.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to THOMAS W. IRVIN whose telephone number is (571)270-3095. The examiner can normally be reached on Mon-Fri 8am-4pm, Alt Fri off (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Siconolfi can be reached on (571) 272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thomas W. Irvin/  
Examiner, Art Unit 3683

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